

OLAO Lean Six Sigma (LSS) Black Belt Project Support

This document provides information about the Lean Six Sigma Black Belt Program which includes training and project mentoring facilitated by OLAO to guide LSS Black Belt candidates through successful Black Belt project completion and NIH leadership steering committee project assessment and certification.

Why Lean Six Sigma?

HHS has embarked on a process called Relmagine HHS, which has engaged staff from around the department. Relmagine HHS identified six strategic shifts as opportunities for the department to advance its work: Leveraging the Power of Data, Restoring Market Forces, Putting People at the Center of HHS Programs, Generating Efficiencies through **Streamlined Processes**, Making HHS a More Innovative and Responsive Organization, and Moving to a 21st Century Workforce¹. To deliver on the HHS initiative of **streamlining processes**, the OLAO LSS Black Belt program trains and mentors team members to improve productivity, quality, customer satisfaction, and efficiency while reducing cost and waste.

1 - <https://www.hhs.gov/about/strategic-plan/message/index.html>

“The most dangerous king of waste is the waste we do not recognize.”

Shigeo Shingo | Toyota Lean Six Sigma Expert

LSS Black Belt Program Impact

Lean Six Sigma Black Belts provide organizations with two key benefits:

- **Process improvement Experts** within the organization that can work within the business to lead complex projects that reduce errors, improve efficiency, eliminate process waste, often resulting in significant returns on investment (ROI).
- **An in-house LSSBB** that can act as a mentor for other team members that want to pursue LSS GB certification via the GB mentoring program.

ICs realize significant savings by using their own people to solve their own organization’s challenging problems in a condensed timeframe, avoiding potentially significant costs associated with contractor involvement or long-term projects. Furthermore, the lessons learned during the Black Belt program, such as advanced LSS tools/templates, effective project management, and empathetic change management can easily be imparted on new projects to further enhance value to the organization.

The LSS methodology provides a rigorous, proven process improvement approach to addressing tough business problems and empowers staff to continuously improve the organization. OLAO is committed to building the process improvement capability by deploying a LSS program that fosters a culture of quality and reduced waste.

The Black Belt program builds upon the Green Belt program, which develops LSS Green Belts (GBs). To participate in the Black Belt program, a team member must already be a certified GB. For more information on the Green Belt program, click [here](#)

To achieve BB certification, a candidate must attend the OLAO LSS BB course and complete a LSS BB project.

Black Belt Program Highlights

- *Effective coaching of BBs from project initiation to certification*
- *Efficient task management to assist projects to close on time*
- *Educates BB candidates on skills required to execute complex improvement projects and deliver strategic communications and recommendations to Senior leadership.*

LSS Black Belt Program

LSS Black Belt Program Costs

Project mentorship by a certified Master Black Belt has a cost component for staff outside of OLAO to help the office recoup its own costs for this mentorship. Project mentorship by a certified Master Black Belt is required to obtain OLAO's LSS BB certification to ensure the candidates are up to the standard of a certified BB. To further reduce the cost to ICs, OLAO is able to offer discounts based on multiple candidates being mentored concurrently as they conduct one improvement project. Our Master Black Belt can help you organize the project in a way that achieves desired organizational outcomes while providing up to three candidates the required experience to meet certification requirements.

Each Black Belt project includes up to 30 hours of Master Black Belt support. These mentoring hours are to support addressing organizational obstacles, leadership communication, and deliverable support.

These mentoring hours are not to support overall completion of the Black Belt project. All Black Belt projects are to be completed by the Black Belt candidate(s) and any supporting Green Belts (or Green Belt candidates) assigned to support the Black Belt.

The goal of the NIH OLAO Black Belt program is to provide guidance and support toward completion of projects that result in operational improvement for the organization AND the development of process improvement experts that will drive continued improvement in their organization as leaders, practitioners, and coaches for future projects. Mentoring rates are highlighted below.

Key Assumptions: Projects that are delayed due to organizational challenges outside of project related issues may increase project mentorship resources and thus drive up the per project costs. Below are additional assumptions used in developing the pricing analysis.

- The Black Belt Program requires all candidates to commit to training and completing a LSS BB project.
- BB candidates will have full support from their respective organization's leadership.
- Candidates will identify a viable LSS BB level project.
- Candidates will have the opportunity to work on their LSS projects.
- Candidates agree to complete projects within nine months of the project kickoff date.
- Project support costs are based on number of BB candidates per project.

LSS Mentor	Number of BB Candidates*	Total Project Mentorship Hours	Training Cost	Project Mentoring Cost	Cost per Candidate**
OLAO Master BlackBelt	1	30	\$2,000	\$10,000	\$12,000
	2	30	\$4,000	\$10,000	\$7,000
	3	30	\$6,000	\$10,500	\$5,500

**Note: Black Belt projects can include Green Belt candidates as support team members and these team members can work toward their Green Belt certification; however, the maximum number of candidates (BB/GB) can not exceed three (3) and at least one (1) must be already certified as an NIH-OLAO GB.*

***Note: If additional mentoring is required to complete the BB projects, then an additional CAN would be required to support the estimated additional mentoring needed, which are determined on a project by project basis at a rate of \$250/hr.*

LSS Black Belt (BB) Program

What must be completed as part of a Black Belt project?

1. Define Phase	4-10 weeks	4. Improve Phase	4-10 weeks
• Project Charter	1-6 meetings	• Potential Solutions	1-6 meetings
• SIPOC Analysis	1 meeting	• Evaluation of Potential Solutions	1 meeting
• As-is / Baseline Process Map	1-6 meetings	• Prioritized List of Solutions	2 meetings
• Voice of the Customer & Voice of the Business (VOC/VOB)	1 meeting	• Quick Wins	2 meetings
• Stakeholder Analysis	1 meeting	• Pilot (Not all projects have this)	0-8 meetings
2. Measure Phase	4-10 weeks	• To-be Process Map	1-4 meetings
• Operational Definitions	1 meeting	• Financial Benefit Estimate	1-2 meetings
• Data Collection Plan	.5-2.5 meetings	• Goal Achievement	1 meeting
• Baseline Data (Data Collection)	2-8 meetings	5. Control Phase	3 weeks
• Baseline Statistics	1-2 meetings	• Approved Solution & Implementation Plan – RACI Chart	2 meetings
3. Analyze Phase	4-12 weeks	• Revised Process Documentation	2 meetings
• Root Cause Analysis– Fishbone Diagram	1-2 meetings	• Process Control Tool	2 meetings
• Failure Modes and Effect Analysis – FMEA	2-6 meetings	• Process Control – Response Plan	2 meetings
• Prioritized Root Causes	1 meeting		

Project Deliverables

Define	Measure	Analyze	Improve	Control
<ul style="list-style-type: none"> • Project Charter • SIPOC Analysis • As-is / Baseline Process Map • Voice of the Customer & Voice of the Business (VOC/VOB) • Stakeholder Analysis 	<ul style="list-style-type: none"> • Data Collection Plan • Operational Definitions • Baseline Data • Baseline Statistics 	<ul style="list-style-type: none"> • Root Cause Analysis – Fishbone Diagram • Failure Modes and Effect Analysis– FMEA • Prioritized Root Causes 	<ul style="list-style-type: none"> • Potential Solutions • Evaluation of Potential Solutions • Prioritized List of Solutions • Quick Wins • To-be Process Map • Financial Benefit Estimate • Goal Achievement 	<ul style="list-style-type: none"> • Implementation Plan – RACI Chart • Revised Process Documentation • Process Control Tool • Process Control – Response Plan